



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,215	06/27/2003	Yasuhiko Kosugi	Q76236	5698
23373	7590	08/11/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			NGUYEN, THINH H	
			ART UNIT	PAPER NUMBER
			2861	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/607,215

**Applicant(s)**

KOSUGI, YASUHIKO

**Examiner**

Thinh H. Nguyen

**Art Unit**

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,11,13,17 and 21-23 is/are rejected.
- 7) ☐ Claim(s) 7,9,10,12,14-16,18-20 and 24-27 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/1/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 11 recites the limitation "said used amount or residual quantity" in claim 11, line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 5-6, 11, 13, 17, 23 are rejected under 35 U.S.C. § 102(b) as being anticipated by Purcell et al. (U.S.6,227,643)

Purcell (col.5, lines 33-59; col.8, lines 26-41) discloses elements of the instant claimed printing apparatus comprising:

a cartridge mounting portion (22) on which a plurality of ink cartridges are detachably mountable, each said ink cartridge having an element (78) into which information may be written, read, stored via processor (52);

Art Unit: 2861

an accumulating means (as described as drop count by the printer; see col.8, line 26-14) for accumulating a discharge amount of ink discharged for every ink cartridge mounted on said cartridge mounting portion;

Re claims 1, 13, a writing member (see processor 52, col.5, lines 50-51) for writing said information into said element, wherein a threshold (values to be set by the counter so that a limit can be determined, i.e., amount of ink discharge, see col.8, lines 26-41) is provided for every ink cartridge; when an accumulated value obtained by said accumulating means for a certain ink cartridge reaches said threshold provided for that ink cartridge, said writing member writes said information into said element of that ink cartridge where said accumulated value obtained by said accumulating means for said ink cartridge has reached said threshold.

Re claims 2, 23, wherein one ink cartridge is selected out of said plurality of ink cartridges mounted on said cartridge mounting portion according to said accumulated value (it is understood that any one or all cartridges are subject to being selected when ink level approaches empty).

Re claims 3, 11, said writing member writes information about a used amount or residual quantity of ink contained in said ink cartridge into said element in said selected ink cartridge. (col.8, lines 13-25)

Re claim 5, said cartridge mounting portion is movable, and said writing member conducts a writing operation in a non-contact state into said element, when said cartridge mounting portion is in a predetermined positional relationship

Art Unit: 2861

with said writing member (characterized by RF wireless transmission, col.9, lines 25+)

Re claim 6, said threshold for every ink cartridge is set according to a capacity of ink which may be contained in said ink cartridge (see above discussion).

Re claim 17, said writing member reads an ID information stored in said element of said ink cartridge (col.9, lines 39+) when said ink cartridge is mounted on said cartridge mounting portion; and said writing member, after reading said ID information, recognizes each element by said ID information which has been already read, without conducting a reading operation again, and writes said information into each element of said ink cartridge mounted on said cartridge mounting portion.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 4, 8, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell in view of Gast et al. (U.S.5,583,547)

Purcell discloses elements of the instant claimed subject matter as noted above with the exception of claimed limitations as cited in claims 4, 8, 21-22.

However, Gast discloses:

Art Unit: 2861

Re claim 4, when said writing member writes said information into said element of said ink cartridge, said accumulated value is reset (col.4, lines 26-35).

Re claims 8, 21, 22, said writing member writes said information into said element of said ink cartridge in which the accumulated value has reached said threshold, in relation with said flushing operation, wherein when conducting said flushing operation, said writing member selects one ink cartridge out of said plurality of ink cartridges mounted on said cartridge mounting portion according to said accumulated value. (col.5, lines 2-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the information relates to the service period of the printhead based on the drop count as taught by Gast in the information parameter of Purcell for the purpose of providing service at some periods for the printhead.

***Allowable Subject Matter***

7. Claims 7, 9-10, 12, 14-16, 18-20, 24-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Patent Application Information Retrieval (PAIR)***

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair->

Art Unit: 2861

direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

***Response to Amendment***

9. Applicant's amendment filed July 22, 2005 have been fully considered and entered. However, Examiner regrets that an early filed IDS (9/1/04), has been recently found during the Office paper scanning process, in which prior art appears to be relevant to the claimed invention. Therefore, an office action is rendered in view of the new ground(s) of rejection.

**Contact Information**

10. Any inquiry concerning this communication should be directed to examiner Thinh Nguyen at telephone number (571) 272-2257. The examiner can generally be reached Mon-Wed, and Thurs from 9:00A – 5:00P. The official fax phone number for the organization is (571) 273-8300. The examiner supervisor, Dave Talbott, can also be reached at (571) 272-1934.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1782.



Thinh Nguyen  
August 3, 2005

**Thinh Nguyen  
Primary Examiner  
Technology Center 2800**